

REMARKS

Claims 1, 3-5, and 7 - 11 are pending and under consideration in the above-identified application, and Claims 2 and 6 were previously cancelled.

In the January 12, 2009 Office Action, Claims 1, 4 and 5 were allowed and Claims 1, and 3-11 were rejected.

In this Amendment, Claims 1 and 4 have been amended, and Claims 3, 7 and 8 have been cancelled. No new matter has been introduced as a result of this Amendment.

Accordingly, Claims 1, 4, 5, and 9 - 11 are at issue.

I. Claim Objection

Claims 3 and 4 were objected to because of informalities.

As required by the Examiner, Claims 3 and 4 have been amended to remove and add the wording "and," respectively.

Accordingly, Applicant respectfully requests that the claim rejection be withdrawn.

II. 35 U.S.C. § 112 Indefiniteness Rejections of Claims

Claims 9 -11 were rejected under 35 U.S.C. § 112, first paragraph, because the specification while enabling for a complex oxide represented by a chemical formula $\text{Li}_a \text{Mn}_b \text{Cr}_c \text{Al}_{1-b-c} \text{O}_d$, (M is aluminum) does not reasonably provide enablement for a chemical formula $\text{Li}_a \text{Mn}_b \text{Cr}_c \text{M}_{1-b-c} \text{O}_d$ (M comprises titanium and magnesium).

Applicant respectfully traverses the rejection.

Applicant submits that the specification of the instant application, published as US Publication No. 2004/0234855 A1 on November 25, 2004, supports the interchangeability between aluminum, titanium and magnesium in the composition of the claimed complex oxide in at least paragraphs [0048], [0098], [0099], and

"[0048] In the complex oxide, chromium has a function as a redox center, and manganese is provided for maintaining a layer structure. Titanium, magnesium and aluminum are provided for stabilizing a crystalline structure, and exist as substitution of a part of manganese and a part of chromium. Thereby, in the cathode material, its structure is stabilized, and the charge-discharge capacity is improved, and superior charge-discharge cycle characteristics can be obtained."

"[0098] As shown in FIG. 20 and Table 6, in Examples 2-1 through 2-3 in which titanium, aluminum or magnesium was included, superior charge-discharge cycle

characteristics were obtained, compared to Comparative Example 2-1 in which none of them was included. In other words, it was found out that when at least one kind selected from the group consisting of titanium, aluminum and magnesium was included in addition to manganese and chromium, the crystalline structure could be stabilized, and the charge-discharge cycle characteristics could be improved.”

“[0099] In the above examples, the compositions of the complex oxides $\text{Li}_a\text{Mn}_b\text{Cr}_c\text{Al}_{1-b-c}\text{O}_d$ and $\text{Li}_{1+c}(\text{Mn}_f\text{Cr}_g\text{M}_{1-f-g})_{1-c}\text{O}_h$ are described referring to specific examples; however, a complex oxide with any other composition can obtain the same effects, as long as the composition is within a range described in the above embodiment.”

“[0105] As described above, in the cathode material according to the invention, in addition to manganese and chromium, at least one kind selected from the group consisting of titanium, magnesium and aluminum is included, so the crystalline structure can be stabilized, and the charge-discharge capacity and the charge-discharge cycle characteristics can be improved.”

Therefore, Applicants’ disclosure provides enablement for a complex oxide represented by a chemical formula $\text{Li}_a\text{Mn}_b\text{Cr}_c\text{M}_{1-b-c}\text{O}_d$ when M is at least one kind selected from the group consisting of titanium, magnesium and aluminum. That is, the claimed complex oxide is enabled whether one of titanium, magnesium and aluminum figures alone in the complex oxide or more than one of titanium, magnesium and aluminum are included in the complex oxide, so long as the compositions of these elements are within the claimed ranges.

Claims 3, 7 and 8 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

This rejection of Claims 3, 7 and 8 is now moot in view of their cancellation.

Accordingly, Applicant submits that the 35 U.S.C. § 112 rejections are overcome and respectfully requests that it be withdrawn.

III. Conclusion

In view of the above amendments and remarks, Applicant submits that Claims 1, 4, 5, and 9 - 11 are clearly allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

If the claims are not found to be in condition for allowance, the Examiner is requested to contact the undersigned to schedule an interview before the mailing of the Office Action. Any communication initiated by this paragraph should be deemed an Applicant initiated interview.

Respectfully submitted,

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